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FIG. 1A

R=Me: 6-deoxyerythronolide B R=H: 8,8a-deoxyoleandolide

L-cladinose

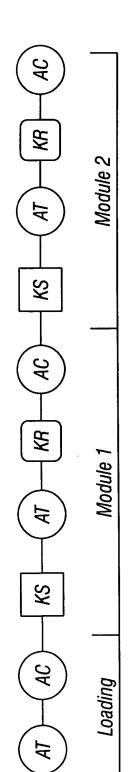
Inventors: De inventors Ala, et al.

plication No.: 09/852,416 cket No.: 300622000501

Post-PKS Biosynthesis of Erythromycins

FIG. 1B

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DEBSI:

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Generic Modular PKS

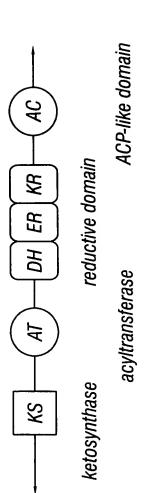


FIG. 2

Inventors: Challed Mile Celler, et al. Application No.: 09/852,416 et No.: 300622000501

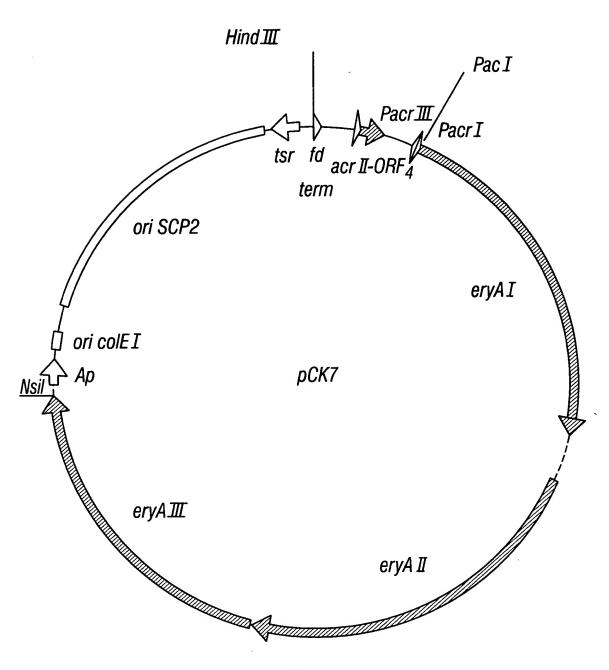
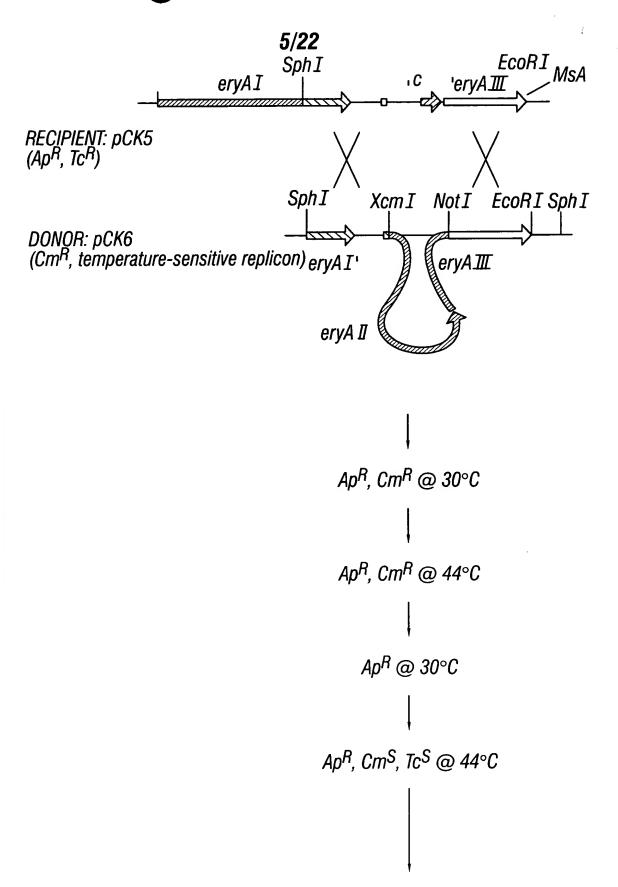
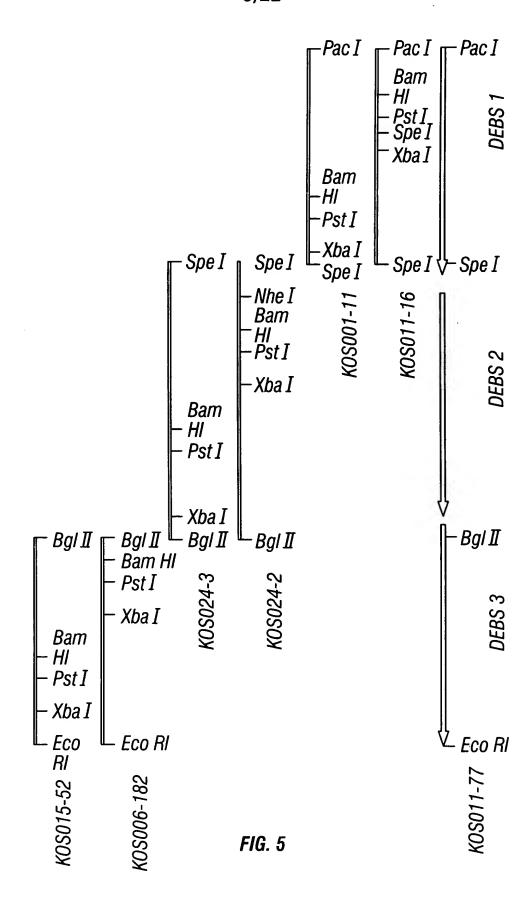


FIG. 3

Inventors: Chaitan R. Calles, et al. ication No.: 09/852,416 et No.: 300622000501



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ication No.: 09/852,416 let No.: 300622000501

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FIG. 6A

#### 8/22 0 'nН 'ОН 'OH 'ОН ‴0H ‴0H ~~OH R 0 ‴0H $\dot{R}$ 0 R 0 ‴0H ‴0H R 0 ""0H ""0H 19 18 20 17 ~"OH ~0H ~"OH ‴0H $R O^{3}$ Ř O R OR 0 ""OH ‴0H ‴ОН "<sub>|</sub>0H <u>1</u> 23 <u>22</u> 21 24 0 OH 'OH OH ‴0H R O $\dot{R}$ 0 R 0° R 0 ‴0H ‴0H "ОН ‴0H <u>2</u>6 27 28 25 0 'OH 'ОН ΌΗ ""ОН R O ″0H "OH R O 0H *30* 31 29

FIG. 6B

Inventors: Chairman School, et al. Application No.: 09/852,416 t No.: 300622000501

FIG. 6D

Inventors: Chaitan 137.2., et al. Application No.: 09/852,416 et No.: 300622000501

FIG. 6E

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FIG. 6F

COCCULATION CAROLE

Inventors: Chatan 1978 Lea, et al. Application No.: 09/852,416 et No.: 300622000501

FIG. 6G

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X=F, CI, Br,  $N_3$ , OH, O-alkyl, S-alkyl, CN, O-acyl, O-aryl, NH2, NH-alkyl, N(alkyl)2

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...

X = F; Y = H, Br, I, OH, O-alkyI, O-aryI,  $N_3$ , CN, S-alkyI, S-aryI X = OH, Y = OH X, Y = -O-, -NH-, -NR-

X=F, CI, Br

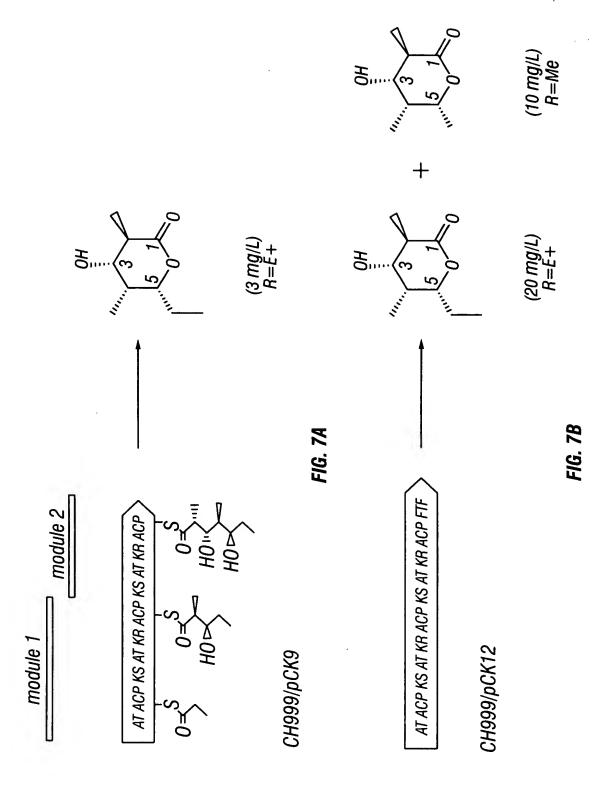
108: X=H 109: X=OH

X=0-alkyl, 0-aryl,  $NH_2$ , NH-alkyl, N-(alkyl)<sub>2</sub>, NH-aryl

FIG. 6H

Inventors: Chair..., et al. Application No.: 09/852,416 t No.: 300622000501

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et No.: 300622000501

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OH 82 оме

FIG. 8A

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FIG. 8B

FIG. 9

Inventors: Changa ANOSLA, et al. lication No.: 09/852,416 ket No.: 300622000501

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Preparation of 1-(2-mercaptopyrimidinyl)-2-0-(methoxycarbonyl)-(D)-desosamine

2-mercaptopyrimidine Now OCO2ME SNCL4 осо<sub>2</sub>ме YOUN CHOCIZ MEZN-CICO<sub>2</sub>Me iPr<sub>2</sub>NEt

1,2-di-0-(methoxycarbonyl)-(D)-desosamine

(D)-Desosamine

1-(2-mercaptopyrimidinyl)-2-0-(methoxycarbonyl)-(D)-desosamine

*осо*<sub>2</sub>ме

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10-deoxymethynolide 210 methynolide 211

methymycin 212 neomethymycin 213

O-desosamine

204

10-epi-methynolide 205

Inventors: Chaitzi, R. 1801. Application No.: 09/852,416

No.: 300622000501

21/22

0 304

cromycin 307

2-demethyl-2-hydroxy-5-deoxy-5-oxo-6dEB 309

*3-dinydronarbonolide* 310

10, 11-dihydropicromycin 311

FIG. 12A

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Inventors: Chamin KAOSLA, et al. Assication No.: 09/852,416 t No.: 300622000501

